

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DATED: June 15, 2001

PRELIMINARY AMENDMENT

a plurality of fastener ejection members disposed adjacent the plurality of spaced apart
retention slots and communicating with the longitudinal pathway;

Christopher G. Trainor
Christopher G. Trainor

an actuator at least partially disposed within the staple cartridge body and configured to be translated through the longitudinal pathway to contact the fastener ejection members and sequentially eject the surgical fasteners from their respective retention slots, the actuator including a base portion defining a plane and having at least two upstanding parallel cam plates each defining an angled leading edge for contacting the fastener ejection members;

a cutting member including a blade and a blade carrier, the cutting member being configured to translate through the staple cartridge body, the blade carrier including a flange configured to engage the base portion of the actuator;

wherein the staple cartridge body includes a planar tissue contacting surface through which extends a linear slot to accommodate translation of the cutting member, the planar tissue contacting surface defining a tissue contacting plane, the cutting member being movable from a first position intersecting the tissue contacting plane to a second position located beneath the tissue contacting plane.

6. A disposable loading unit according to Claim 5, wherein the at least two upstanding parallel cam plates includes four upstanding parallel cam plates.

7. A disposable loading unit according to Claim 6, wherein two of the four upstanding parallel cam plates are positioned on each side of the linear slot.

8. A disposable loading unit according to Claim 5, wherein the blade is located proximally of the angled leading edge of each of the at least two upstanding parallel cam plates.

9. A disposable loading unit for a surgical stapling apparatus comprising:
a staple cartridge body having a planar tissue contacting surface defining a tissue
contacting plane, said body defining a longitudinal pathway therethrough and a linear slot
traversing said planar tissue contacting surface, said body further defining a plurality of fastener
retention slots on both sides of said linear slot, said fastener retention slots slidably supporting a
respective surgical fastener and at least a portion of a surgical fastener ejection member;

an actuator having a beam portion and at least two cam plates having distal camming
surfaces, said actuator configured to move in at least a distal direction through said longitudinal
pathway to sequentially engage said cam plates with a portion of said surgical fastener ejection
members to drive said surgical fasteners transversely with respect to said longitudinal pathway;

a cutting member having a blade support and a blade, the blade support of said cutting
member being connected to said beam portion of said actuator in a manner that allows said blade
to translate with said actuator from adjacent a proximal end of said linear slot to adjacent a distal
end of said linear slot to bisect said tissue contacting plane, said blade support including a
proximally projecting flange which contacts the actuator, wherein when the actuator moves
distally through said longitudinal pathway, the blade support, in cooperation with the beam
portion of the actuator, maintains the blade in a cutting position.

10. A disposable loading unit according to Claim 9, wherein said blade support is
positioned proximal to said distal camming surfaces of said cam plates.